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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/905,649      | 07/13/2001  | Stefan Gierl         | Westphal.6321       | 2679             |

7590 09/10/2004  
Samuels, Gauthier & Stevens LLP  
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225 Franklin street  
Boston, MA 02110

EXAMINER

NGUYEN, QUYNH H

ART UNIT PAPER NUMBER

2642

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/905,649

Applicant(s)

GIERL, STEFAN

Examiner

Quynh H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/13/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toromaru et al. (U.S. Patent 5,548,836) in view of Rudolph et al. (U.S. Patent 6,188,447).

Regarding claim 1, Toromaru et al. teach receivers 30 and 40 (Fig. 1) assigned to a common output device (Fig. 1, 60), the receivers 30 and 40 are capable of stepping / detecting through their frequency band of for frequency signal value associated with the same transmitter (col. 1, lines 38-43); comparing the signal strength of the signal received by the receivers (col. 1, lines 43-51); tuning / selecting the output of the larger instantaneous value (has lower noise and a better receiving signal) of the receiving electric field intensity between the receivers 30 and 40 (col. 1, line 64 through col. 2, line 3).

However, Toromaru et al. do not teach designating one of the receivers as an audio receiver and is tuned to a frequency of a radio transmitter and outputs a signal received from the transmitter to the output device.

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Rudolph et al. teach a frequency diversity system for use in mobile reception of television and RF signals having receiver 2 is designated as an audio receiver (Figures 1 and 2 and col. 3, lines 35-36) and receiver 5 continues searching the entire transmission range.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the feature mentioned above, as taught by Rudolph, in Toromaru's system in order to have a better frequency diversity system that designates one of the receivers as an audio receiver for audio and video reproduction in television.

Regarding claim 2, Toromaru et al. teach computing the difference between the field strengths, providing a difference signal value indicative thereof, and comparing the difference signal value to a threshold value (col. 2, lines 12-29).

Regarding claim 3, Toromaru et al. teach the threshold value is a fixed threshold value (col. 2, line 53 - predetermined threshold value).

Regarding claim 4, Toromaru et al. teach the threshold value is a set relative to the quality of a frequency found by the search receiver (col. 2, lines 12-22).

Regarding claim 5, Rudolph et al. teach transmitting the frequency found by the search receiver to the audio receiver, and tuning the audio receiver to this frequency (col. 3, lines 59-62).

3. Claims 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudolph et al. (U.S. Patent 6,188,447) in view of Toromaru et al. (U.S. Patent 5,548,836).

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Regarding claim 11, Rudolph et al. do not teach the first and second receivers each include their own uniquely associated antenna.

Toromaru et al. teach the first receiver 30 and second receiver 40 each include their own uniquely associated antennas 10 and 20.

It would have been obvious, or at least inherent that the receiver includes an antenna for receiving radio wave.

Regarding claim 13, Rudolph et al. do not teach the bus comprises a MOST bus. There are different types of bus, but all serve the same purpose of communicating between receivers.

Regarding claim 14, Rudolph et al. teach the first receiver transmits the identification signal onto the comparator 50. Obviously, the first receiver transmits the identification signal onto the bus if the comparison takes place there.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 6-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Rudolph et al. (U.S. Patent 6,188,447)

Regarding claim 6, Rudolph et al. teach the steps of: a first receiver that is tuned to receive a signal from a certain transmitter and provide a received signal indicative

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thereof and a first quality signal indicative of signal strength of the received signal (col. 3, lines 35-36 and lines 38-45); a second receiver that is automatically scanned through its associated reception range to identify a frequency signal value associated with the transmitter (col. 3, lines 46-59); wherein the first receiver compares the first quality signal and the second quality signal and tunes to the frequency signal value if the second quality signal indicates a better signal quality than the first quality signal (col. 3, lines 59-67). Rudolph's frequency diversity system is inherently usable in a vehicle.

Regarding claim 7, Rudolph et al. teach a bus to which the first and second receivers are connected and over which the first and second receivers communicate (hybrid circuit 18).

Regarding claims 8-10, Rudolph et al. teach an audio processing unit (Fig. 1, 8) couple the first receiver to receive the receiver signal and provide an output signal indicative thereof, a controller and an a microprocessor (Fig. 1, 3).

Regarding claim 12, Rudolph et al. teach the second receiver receives an identification signal over the bus indicative of the transmitter (col. 3, lines 50-59).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takai (U.S. Patent 5,561,673) teaches antenna switched diversity receiver. Tsurumaru (U.S. Patent 5,291,519) teaches digital mobile communications terminal equipment and receiving method therefor. Ekelund (U.S. Patent 5,203,026) teaches method of selecting the most suitable receiver antenna from

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two or more receiver antennas. Bell (U.S. Patent 4,450,585) teaches signal switching and combining systems for diversity radio receiving systems.

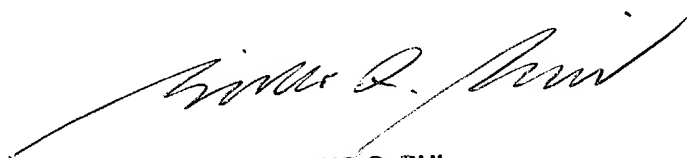
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

qhn

Quynh H. Nguyen  
September 2, 2004



**BING Q. BUI**  
**PRIMARY EXAMINER**